

§ 118.90

§ 118.90 Bridges crossing channel obliquely.

Bridges crossing a body of water at an angle other than 90° with the axis of the channel shall be lighted in accordance with the regulations in this part with such modifications as are necessary in each particular case.

§ 118.95 Lights on structures not part of a bridge or approach structure.

Lights on sheer booms, isolated piers, obstructions, and other structures not part of a bridge or approach structure must meet the requirements for aids to navigation in Subpart 66.01 of Part 66 of this chapter.

[CGD 84-022, 51 FR 16313, May 2, 1986]

§ 118.100 Retroreflective panels on bridge piers.

The District Commander may require or authorize the display of high intensity red or green retroreflective panels when the District Commander finds it necessary:

(a) To better identify a hazardous pier.

(b) To provide a backup for red pier lights, red channel margin lights, and green mid channel lights, which are subject to vandalism or otherwise difficult to properly maintain. If the District Commander determines that the nominal nighttime visibility required is less than one-half mile, the panels must be at least six inches square. If the visibility required is more than one-half mile, the panels must be at least 12 inches square.

(c) To mark bridge piers or channel sides on bridges not required to have bridge lighting. Lateral significant red triangles and green square retroreflective panels shall be used. The panels shall be at least 36 square inches in area to provide a nominal nighttime visibility distance of at least one-half mile.

[CGD 84-022, 51 FR 16313, May 2, 1986]

§ 118.105 [Reserved]

§ 118.110 Daymarks and lateral lighting on bridges.

(a) The District Commander may require or authorize the marking of the margins of navigation channels

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through bridges with U.S. aids to navigation system lateral marks and lights installed on the superstructure or on the channel piers. The District Commander may also require or authorize the use of quick flashing, flashing, isophase or occulting red and green lights to mark the main channels.

(b) If lateral system lights are required or authorized to mark the main navigation channels, fixed yellow lights shall be used to mark the adjacent piers and the centerline of the channel shall be marked with the standard lateral system safe water mark and occulting white light, instead of the lights prescribed in § 118.65.

(c) The District Commander may require or authorize the marking of the centerline of the navigation channel drawspan of floating drawbridges with a special mark, diamond in shape, yellow in color, and with a high intensity retroreflective material border. The District Commander may require or authorize the mark to exhibit a flashing yellow light Morse Code "B" characteristic. The mark may not be visible when the drawspan is in the open position.

[CGD 84-022, 51 FR 16313, May 2, 1986]

§ 118.120 Radar reflectors and racons.

The District Commander may require or authorize the installation of radar reflectors and racons on bridge structures, stakes, or buoys. Radar reflectors are used to mark the location of the edge of the navigation channel or bridge channel piers. Racons are used to mark the centerline of the channel.

[CGD 84-022, 51 FR 16313, May 2, 1986]

§ 118.130 Fog signals.

On waterways where visibility is frequently reduced due to fog or other causes, the District Commander may require or authorize the installation of one or more fog signals to warn the navigator of the presence of the bridge. The fog signals must conform to the installation, range, and sound frequencies provisions in Subpart 67.10 of Part 67 of this chapter. If more than one fog signal is installed on a bridge or in the vicinity, their characteristics must be different to distinguish each

signal. The fog signals must be directional to the fullest extent possible to minimize adverse impact on local residents.

[CGD 84-022, 51 FR 16313, May 2, 1986]

§ 118.140 Painting bridge piers.

The District Commander may require painting the sides of bridge channel piers below the superstructure facing traffic white or yellow when they are significantly darkened by weathering or other causes so as to be poorly visible against a dark background.

[CGD 84-022, 51 FR 16314, May 2, 1986]

§ 118.150 Traveller platforms.

The District Commander may require under deck traveller platforms which may significantly reduce the vertical clearance when operated over navigation channels at night to be lighted with quick flashing red lights on each of the four lower corners.

[CGD 84-022, 51 FR 16314, May 2, 1986]

§ 118.160 Vertical clearance gauges.

(a) When necessary for reasons of safety of navigation, the District Commander may require or authorize the installation of clearance gauges. Except as specified in § 117.47(b) of this chapter for certain drawbridges, clearance gauges must meet the requirements of this section.

(b) Clearance gauges must indicate the vertical distance between "low steel" of the bridge channel span (in the closed to navigation position for drawbridges) and the level of the water, measured to the bottom of the foot marks, read from top to bottom. Each gauge must be installed on the end of the right channel pier or pier protection structure facing approaching vessels and extend to a reasonable height above high water so as to be meaningful to the viewer. Other or additional locations may be prescribed by the District Commander if particular conditions or circumstances warrant.

(c) *Construction.* Each gauge must be permanently fixed to the bridge pier or pier protection structure and made of a durable material of sufficient strength to provide resistance to weather, tide, and current. Gauges may be painted directly on the bridge channel pier or

pier protection structure if the surface is suitable and has sufficient width to accommodate the foot marks (graduations) and numerals.

(d) *Numerals.* (1) Each gauge must be marked by black numerals and foot marks on a white background. Paint, if used, must be of good exterior quality, resistant to excessive chalking or bleeding. Manufactured numerals and background material may be used.

(2) The size, type, and spacing of numerals must conform to the Standard Alphabets for Highway Signs and the following table. The nominal day visibility distance is the distance at which the clearance information needs to be ascertained by approaching vessel operators. The District Commander determines this distance for each bridge.

Nominal day visibility distance (feet)	Height of numeral (inches)	Type of numeral	Vertical spacing of numerals (feet)
Less than 500	12	Series C ...	2
500 to 750	18	Series C ...	2
750 to 1,000	24	Series D ...	5
1,000 to 2,000	30	Series E ...	5
More than 2,000	36	Series E ...	10

(3) The length of the foot marks must be no less than the width of a single numeral used (except numerals 1 and 4), be the same thickness as the width of stroke of the numeral, and extend to the nearest margin of the white background. Foot marks must be spaced every foot for nominal day visibility of less than 500 feet, every two feet for a nominal day visibility of more than 500 feet but less than 1,000 feet, and every five feet for nominal day visibility of more than 1,000 feet.

(4) Intermediate foot marks may be used when more precise determination of actual clearance is necessary. Such intermediate foot marks must have a width of stroke one-half the width of the stroke required for the numeral and shall be three-quarters as long as the primary foot marks.

(5) The horizontal distance between the numeral and nearest edge of the white background shall be no less than one-half the width of a single numeral (excepting numerals 1 and 4).

(6) The minimum width of the white background shall be no less than three times the width of a single numeral (excepting numerals 1 and 4) plus the